

## Debranching improves morpho-physiological characters, fruit quality and yield of tomato

### ABSTRACT

Farmers are commercially cultivated tomato with different levels of shoot pruning but this production practice has not been defined clearly. The experiment was conducted under sub-tropical condition to assess the effect of different levels of debranching on morpho-physiological, reproductive and yield contributing characters in determinate tomato cultivar cv. Binatomato-5. The debranching levels were: i) control, ii) only mainstem (MS), iii) MS with 2 branches, iv) MS with 3 branches and v) MS with 4 branches. Based on recommended spacing (50 cm × 50 cm), the higher fruit yield plant<sup>-1</sup> as well as fruit yield per hectare were observed in more branch bearing plants of the treatment control (MS with 5-6 branches), MS with 3 branches and MS with 4 branches due to production of higher number of fruits plant<sup>-1</sup> with being the highest in MS with 3 branches due to increase fruit size. The lowest fruit yield per plant as well as per hectare was observed in unicum plants due to lower number of fruits per plant. This study suggests that plants that have MS with three branches may be recommended for commercial cultivation of tomato under sub-tropical condition.

**Keyword:** Branch removal; Physiological and reproductive characters; Fruit yield; *Lycopersicon esculentum*